

# PATENT ABSTRACTS OF JAPAN

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## (54) IMMERSION TYPE MEMBRANE SEPARATOR AND MEMBRANE SEPARATION USING THE SAME

### (57)Abstract:

**PURPOSE:** To provide a membrane separator and a membrane separation method by which a permeated liquid is obtained even during bubbling and membrane separation is performed effectively, and inexpensively without requiring a complicated controller.

**CONSTITUTION:** In this separator, a flat membrane 11 is provided with permeated liquid outlets 14, 15 on both the ends thereof, and each of the permeated liquid outlets is connected to a suction pump 20 through a valve, and below the flat membrane 11, sprinklers 26, 27 for performing air bubbling separately and alternately onto both the permeated outlet sides are provided. A separation tank 10 of this device is filled with raw liquid, and the permeated liquid is sucked and filtered from one of the permeated liquid outlets of the flat membrane, and simultaneously on the other permeated liquid outlet side, the sprinkler is driven to perform air bubbling from below, allowing cake stuck on the membrane surface to be removed. Such operation is alternately repeated.

